

7. (amended) The process of claim 1 further comprising forming the isotropic plasma by microwave excitation of at least one of the combinations of gases including N_2H_2 , NH_3 and N_2 , and H_2 .

9. (amended) The process of claim 1 wherein step (e) further comprises forming the second conductive layer of tungsten.

10. (amended) A process for forming a conductive via in an integrated circuit structure, where the integrated circuit structure includes a first dielectric layer overlying a first conductive layer, the process comprising:

- (a) forming a via cavity in the first dielectric layer, the via cavity exposing the first conductive layer;
- (b) forming a titanium layer over and adjacent the first conductive layer in the via cavity;
- (c) etching the via cavity with a hydrogen-containing plasma, thereby stripping carbon and oxygen from a residue on the first conductive layer in the via cavity;
- (d) Argon sputtering the via cavity to at least partially remove the residue on the first conductive layer in the via cavity;
- (e) forming a titanium nitride liner layer in the via cavity;
- (f) exposing the titanium nitride liner layer to an isotropic plasma containing hydrogen ions, thereby densifying the titanium nitride liner layer, including sidewalls of the titanium nitride liner layer; and
- (g) forming a tungsten layer adjacent the titanium nitride liner layer in the via cavity, the tungsten layer substantially filling the via cavity to form the conductive via.

11. (amended) A process for forming a conductive via in an integrated circuit structure, where the integrated circuit structure includes a first dielectric layer overlying a first conductive layer, the process comprising:

- (a) forming a via cavity in the first dielectric layer, the via cavity exposing the first conductive layer;
- (b) forming a liner layer in the via cavity;